

SPRAGUE®

THE MARK OF RELIABILITY

SEPTEMBER, 1978

LOG

SPRAGUE TOP EXHIBITOR AT SHOW IN LAS VEGAS

The Sprague Products Company, Distributors' Division of Sprague Electric Company, was named "Exhibitor of the Year" at the annual National Electronics Week Convention in Las Vegas, Nevada in May. More than 8000 electronics distribution industry personnel attended the conference.

Sprague was selected from the more than 300 exhibitors participating in the convention as "having the most effective, interesting, and comprehensive program of Show-related activities based on the convention's science fiction/travel theme". Judges, consisting of officers and directors of the National Electronic Distributors' Association, considered "theme-related pre-Show advertising and direct mail activities aimed at building attendance to the Show and at the exhibitor's booth, as well as creative displays and theme-related at-Show programs". The "Exhibitor of the Year" plaque was presented to Sprague Electric representatives by Astronaut Alan L. Bean.

In addition to receiving the Exhibitor of the Year Award, Sprague Products was also cited for the excellence of its theme-related booth, which consisted of a 20 x 40 foot "Star Car" resembling a futuristic space vehicle. The "Star Car" displayed brilliant flashing lights and eerie electronic sounds as well as a laser beam lights pattern. Some of the circuits used in the electronics utilized microcircuits produced at our Worcester facility.

Based on a modular construction, the multi-level booth offered a display area for products on the lower level and a conference area on the upper level where distributors could confer with Sprague Electric personnel.

The "Star Car" was the creation of Stanley Pitkin, exhibits manager, and was constructed by our skilled craftsmen who devoted approximately 2½ months of labor to the project. The combined efforts of the crafts maintenance department made an outstanding contribution to the success of the "Star Car".

The company was also awarded a plaque for having the most effective pre-Show promotion.

MAGAZINE FEATURES SPRAGUE AVIATION DEPARTMENT IN AUGUST ISSUE

The Sprague Aviation Department was part of a continuing series of company aviation-department profiles in the August issue of Business and Commercial Aviation magazine. The article emphasizes that Sprague Aviation's dedication to safety and its intensive training of its pilots in this area, has resulted in an outstanding safety record. Company aircraft have compiled an accident free record of over 40,000 flight hours and 7.5 million air miles.

A formal Aviation Department was planned and organized by Robert C. Sprague, Jr., now Senior Vice-President of Corporate Services, in 1951 and remains under his area of responsibility. In addition, the Company's Maintenance Base was reorganized as the Sprague Aviation Company and became a wholly-owned subsidiary of Sprague Electric in 1970, with Robert C. Sprague, Jr. as President.

The Aviation Department consists of a three member crew/passenger scheduling office and five full-time pilots with a present operating fleet of a Beech King Air 200, a King Air E90 and a Cessna 310R. In the last year more than 3,000 company personnel were transported about 250,000 miles in nearly 1,400 hours of flying. Each of the Company's full-time pilots average about 50 hours of flight time each month. Other working hours are devoted to reviewing and updating Aviation Department manuals, studying Federal Aviation Regulations, company aircraft and system manuals, training and emergency procedures. Each Sprague pilot must attend a three-day annual recurrency training session at TWA's flight academy in Kansas City and participate in a yearly operator's clinic conducted by Beech Aircraft representatives. In addition, William G. Benedetti, Corporate Director of Aviation, and Robert C. Sprague, Jr. attend TWA's Flight Instructor Course.

Sprague's Aviation Department management feel the real key to the level of safety maintained by the Company's Aviation Department is constant training to maintain high proficiency and preparation to cope with even the most remotely conceivable emergency. Such training has achieved the remarkable safety record the Sprague Aviation Department enjoys.



Astronaut Alan L. Bean, left, presents "Exhibitor of the Year" plaque to Sprague Electric Company representatives at National Electronics Week Convention in Las Vegas, Nevada. Accepting award are Stanley D. Pitkin, exhibits manager and Sidney L. Chertok, director advertising sales promotion.



Pictured above is the Sprague "Star Car" which captured award at National Electronics Week Convention.

THE HISTORY OF THE "LOG"

The Sprague Electric "LOG" dates back to August of 1938 when an eight page publication was first introduced. The name at that time coincided with the Company's name, "Sprague Specialities" and one Etta Owen was the editor of the first issue. In July of 1943 the name of the publication was changed to the "Sprague Specialities Victory Log" and it was published on a bi-monthly basis. In April of 1944, the "LOG" became the "Sprague Electric Victory Log" and it featured articles on employees and relatives serving in the Armed Forces. In January of 1947, the name of the publication was changed to simply "Sprague Electric Log".

In March of 1960 the first magazine issue was published and this was followed by two similar issues per year. In addition to a twelve publication schedule, on occasion, there were special issues of the "LOG". Unfortunately, due to a variety of reasons including interest, reduced staff and general economics the "Sprague LOG" was discontinued in 1971. Now in 1978 with our Company's renewed emphasis on employee communications, it is hoped to publish a "Sprague LOG" that is of general interest to all employees. Along those lines we would encourage the readers of this issue to supply their local Industrial Relations Managers with either an article or information about an interest or activity concerning our employees and it will be forwarded to the Corporate Publication Department for review and possible use. Additionally, any suggestions for improvement of the "LOG" are solicited.

This publication is now scheduled on a bi-annual basis subject to change based upon employee response.

The Editors

SPRAGUE AWARDS 31 SCHOLARSHIPS

1978 scholarships awarded to sons and daughters of Sprague Electric employees totaled \$8950. Scholarship recipients at the various plants were:

North Adams	— Joann T. Wong, daughter of Janis Wong Crystal A. Brooks, daughter of Dorothy Brooks Joseph V. Boni, son of Joseph Boni Jan C. Rancatt, daughter of Peter and Dolores Rancatt Gary A. Lefave, son of Joanne Lefave Lauren R. Pitkin, daughter of Stanley Pitkin
Ashe County	— Sharon E. Weaver, daughter of Clayton D. Weaver Michael L. Jones, son of Lloyd Jones Shelia Welch, daughter of Minnie Welch Teresa L. Powers, daughter of John Powers Norman G. Harless, son of Gwyn Harless
Barre	— Daniel J. Couture, son of Gisele Couture Terriann Pierce, daughter of Carlyle Pierce
Concord	— Pamela P. Roy, daughter of Roger Roy
Grafton	— Jeffrey J. Scholten, son of Tamako Scholten
Hillsville	— Jané E. Larowe, daughter of Arthur Larowe Lisha G. Lineberry, daughter of Edna Lineberry Cheryl Quensenberry, daughter of Roy Quensenberry Debbie L. Sutphin, daughter of Mary Sutphin Deborah A. Sharpe, daughter of Junior Sharpe
Micro Tech	— Ralph J. Hershkowitz, son of Bernard Hershkowitz
Nashua	— Steven J. Bonczar, son of Mary Bonczar Terrie Wardner, daughter of Cheryl Wardner
Orlando	— Donna M. Yakima, daughter of Anthony Yakima
Sanford	— Charles W. Quint, Jr., son of Charles and Sabra Quint Kevin S. Patterson, son of Lena Patterson
Wichita Falls	— Stephen Tomaselli, son of Vincent Tomaselli
Worcester	— Gary E. Curtis, son of Robert Curtis Rosa napoletano, daughter of Imperia napoletano Patricia M. Collins, daughter of Irene Collins Laura C. Riley, daughter of Gloria Riley

NORTH ADAMS

EMPLOYMENT MANAGER RETIRES



Marion G. Caron will retire as North Adams employment manager in September. Her continuous service dates back to August 12, 1930, making her the most senior employee of Sprague Electric with the exception of Robert C. Sprague. Her long career covered numerous job responsibilities including department clerk and steno clerk before joining the personnel group in October 1936. She has worked in personnel since that time and was named employment manager December 12, 1954, the position she has held since that time.

Marion was active on the Sprague LOG serving as circulation manager from 1943 until 1971. She was one of the first female members of the Sprague Management Club and was one of 40 members admitted to the Quarter Century Club in 1955. Prior to that time only 13 people had membership in the club. She has been a member of the Board of Directors of the Credit Union for many years and is also a member of the Credit Committee.

Marion speaks of her years with Sprague Electric as being

"very, very enjoyable years". "I really enjoyed talking to people and I learned something from each person I interviewed", she said. Over the years she came to know just about everyone in the community. Her job as employment manager enabled her to assist in hiring in many of the branch plants. In addition to North Adams, she travelled to the Bennington plant two days a week for several years to hire for that plant. She has also assisted at Annapolis Junction, Wichita Falls, Orlando and Sanford.

She is the mother of two daughters, Mrs. Ann Marie Walden of Daytona Beach and Mrs. Virginia Gallese, Altamonte Springs, Florida, whose husband John, is a foreman at the Orlando plant. She also has four grandchildren.

Marion loves to travel and plans to do a lot of it after September. First on the agenda is a visit to both daughters in Florida. She will maintain her home in North Adams and spend part of each winter in Florida — when she isn't off on another trip. Our best wishes for a long and happy retirement.

SPRAGUE ELECTRIC LOG ISSUE 1, 1978

Norma M. Hays, *Editor*

Associate Editors:

Robert M. Arena, Sanford
David C. Cates, Visalia,
Los Angeles
James P. Clucas, Barre
James R. Desens, Grafton
Robert J. Diodati, North Adams
McDaniel Harless, Hillsville
William R. Kuslaka, Concord
Marion H. Manion, North Adams
Edward J. Noel, Nashua

Stuart A. Sutherland, Orlando
Fred T. Thompson, North Adams
Thomas D. Vangel, Worcester,
Micro-Tech
Hugh H. VanZelm, Jr., Annapolis
Junction
Clayton D. Weaver, Lansing
S. Jane White, Wichita Falls,
Brownsville
William Williams III, Clinton

Paul S. Sprague - *Photographer*

GORDON R. LOVE NAMED VICE PRESIDENT



Dr. Gordon R. Love has joined Sprague Electric Company as Vice-President Corporate Research, Development and Engineering. Since his arrival at Sprague Electric, Dr. Love has been establishing better communications within the newly formed Research, Development and Engineering operation by regrouping his staff, making it easier for everyone involved in the creative processes to communicate more effectively with each other. The changes will be made in the hope of making the Research, Development and Engineering people more effective and increase their cooperation with the manufacturing areas.

Dr. Love noted that Japanese expertise in fast assembly and low cost manufacturing methods challenges us to improve our methods in order to be competitive. He also feels that we will have to work harder in assembly and manufacturing technology. While Research, Development and Engineering will not be able to solve all problems, they will be striving to increase our knowledge and ability in these areas. Dr. Love believes that strengthening communications is a most important step toward that goal. He welcomes input from all involved and feels every employee must strive to do his job ever more rapidly, more precisely, and more reliably in order for us to compete with foreign manufacturers.

Dr. Love feels the technical support organizations of a company have a responsibility for three major areas: (1) devices that support the organization, (2) utilization of good quality materials, a good understanding of how they work and the responsibility to use them wisely, and (3) processes for converting the raw materials into finished devices of high yield, high productivity and

high reliability. Research, Development and Engineering will be dedicated to this effort in the months ahead.

Dr. Love received his B.S. in metallurgy from the former Case Institute of Technology, now Case-Western Reserve University, and received his M.S. and Ph.D. in metallurgy from the Carnegie Institute of Technology, now Carnegie-Mellon University in 1961 and 1963 respectively. From June of 1962 until early 1970 he was employed in various research capacities at Oak Ridge National Laboratory. He then joined the Electronics Division of Union Carbide Corporation as Assistant Manager, Technology, a position he held until coming to Sprague Electric.

Dr. Love, his wife and 14 year old son are residing in Williamstown. All the family participates in creative projects and numerous crafts and also expect to pursue their interest in skiing in the Berkshires this winter.

WORCESTER PRODUCES AM/FM RADIO SYSTEM

Performing all radio functions except for the VHF tuning, the ULN-2204A AM/FM radio system is well-suited for low cost applications requiring a minimum parts count and high performance standards.

One of the most notable characteristics of the ULN-2204A AM/FM radio system is its ability to operate over a very wide supply voltage range. The unit is well suited for use in battery-operated portable radios (6 or 9 volts) or line driven table radios. The self-contained Zener diode can be used as a supply voltage limiter (typically 13 volts) or as a "brute force" shunt regulator. The entire AM/FM radio system will operate at supply voltages as low as 2 volts (at reduced volume) without any significant increase in distortion. "Brown-outs" and weak batteries need no longer be a major concern.

Featuring high performance at low cost, this monolithic AM/FM radio requires only a VHF tuner and a minimum of external passive components. It will operate over a very wide supply voltage range (2 to 12V) with minimum distortion and low power consumption. Superior circuit implementations include an active fully-balanced AM mixer, a composite AM/FM IF, a linearized AM detector, a new type of phase/frequency detector, and an audio power amplifier requiring only two external capacitors.

VISALIA PLANT SUPPLIES DC-DC CONVERTER FOR NEW TRIP COMPUTER

Cadillac's New Trip Computer manufactured by Delco Electronics is using a power supply, the 200Z631D, manufactured by our Visalia plant. This device is a DC-DC converter which takes battery voltage (typically 12V) and raises it to a 100 V DC level. The higher voltage is required to power a gas discharge digital display used on the General Motors Trip Computer and this option is available only on the Cadillac Seville at the present

time. The system provides readouts showing gallons of gas remaining, speed, and time. The time function can also be used to display results of calculations made in the computer portion of the system.

The 200Z631D DC-DC converter is one of a series of converters Visalia is now manufacturing. Included in our present production is a series of standard devices along with a number of specials being manufactured for OEM's. Our standard line will soon be available at distributors. Primary customers for this type of product are those OEM's involved with point of sale machines, terminals, automotive, and aircraft.

SPRAGUE SUGGESTION SYSTEM

There is really a very easy way to make money at the Sprague Electric Company for most hourly employees. Put on your thinking cap and come up with an idea that will give you extra money. At the place you work is an ongoing suggestion system that pays 15% of first year net savings with a maximum of \$7500.

In 1978 our suggestion system is booming almost at most locations and inventive employees will be receiving awards frequently throughout the year. In the first six months of 1977 awards were given amounting to a total of \$6,373.76.

How can you make some cash? First, start working on how to save money by reducing production costs, eliminating waste, improving the way the job is performed, safety ideas, etc. Then obtain a suggestion form and read over the rules. If you need any help at all, talk to someone in the Industrial Relations Department. They are paid to help you and will be happy to assist you in filling out the form and answer any questions you may have regarding the suggestion system.

Employees sometimes do not take advantage of the system as they don't want to "get involved", or "it's too much trouble", or "I'll wait until another time". They may speak out about a new idea but for some reason, do not want to write it down. Well here's hoping you will put some of your good ideas down on paper and submit them for possible cash awards because with your experience, no one knows your particular job better than you do.

Some of us don't think about our job when we are away from it but for those who do, an idea which would make your job better may lead to more cash for you and/or the family. A suggestion submitted through your Sprague Electric Suggestion System that could add \$7500 to your wages is a very good idea!

Fern Bosse, Jr., of Sanford, recently received his fourth suggestion award since 1966. The first award was \$50, the second \$100, and the third was \$700. Bosse has now received \$3,785 for his latest suggestion for a modification of the covers on tantalum capacitor units. It is the largest suggestion award ever to be made to an employee.



Fern Bosse Jr. (L) of Dept. 3965 is shown receiving suggestion award check in the amount of \$3785.00 from Andy Carlin (R), General Foreman of the department. Looking on is Lin Whitten, Foreman.

FIRST HALF RESULTS

On July 31, the Sprague Electric Company reported net sales for the six-months ended June 30, 1978 of \$138,809,307 compared to \$115,485,825 last year. Net earnings amounted to \$7,914,503 or \$2.28 per share compared to \$5,886,457 or \$1.69 per share, including extraordinary credits of \$793,528, or \$2.23 per share, and \$234,463 or \$0.07 per share, respectively from the utilization of tax loss carryforwards.

For the second quarter ended June 30, 1978, net sales were \$72,175,455 compared to last year's second quarter sales of \$58,502,191. Net earnings amounted to \$4,207,877, or \$1.21 per share compared to \$3,194,874, or \$0.92 per share, for the comparable period of 1977. The second quarter of 1978 included \$102,627, or \$0.03 per share, resulting from the utilization of tax loss carryforwards, as compared to \$130,092, or \$0.04 per share, in the corresponding period in 1977.

The second quarter and six month's net earnings for 1978 include a provision of \$500,000, after taxes, for the planned liquidation of a subsidiary.

On July 18, 1978, for approximately \$10,028,000 before expenses estimated at \$180,000, the Company, through a public offering, sold 600,000 of its shares of common stock of Mostek Corporation. This sale reduces the Company's share in Mostek from 34% to 21%. This investment has been and will continue to be carried on the books of the Company on the equity method, and its share of the earnings in Mostek are shown under equity in net earnings of affiliates.

Neal W. Welch, chairman of the board and chief executive officer, said that "based on our operating results for the first six months and the continuing strong market conditions projected in our industry for the balance of the year, we look for an excellent 1978 for the Company."

He emphasized that we continue to be a very labor intensive industry noting that the Sprague Electric Company presently employs some 8,550 persons in 18 plants in the United States. Therefore, the successes achieved in the first six months are largely attributable to the efforts and efficiencies of all employees who are to be congratulated for their contributions.

SAFETY NEWS

As part of our continuing emphasis on employee safety, a Corporate Safety Committee has been established. The members of this committee represent all operations of the Company including Production, Research and Development and Service departments. Their responsibilities are the guiding and monitoring of corporate-wide efforts in the prevention of accidents and this may include formulation of policy and assistance to Local Safety Committees and the Corporate Safety Department. The members of the committee are:

Philip T. Brucato,
Corporate Safety Engineer
Thomas W. Gately,
Director of Corporate Relations
John W. Murphy,
V-P Passive Components
Dr. Sidney D. Ross,
Director of Research
Frederick S. Scarborough,
General Manager, Filter Division
Robert D. Smith,
V-P Materials and Manpower
Fred T. Thompson,
V-P Corporate Relations
Jack D. White,
V-P Passive Operations
Francis C. Wilson,
Corporate Manager Safety and Employee Services

Annual Safety Report

Sprague Electric Company had a total of 14,473,721 man-hours worked for 1977 with 266 reported accidents, 113 being lost time accidents with 2,263 lost workdays. This gave us an incidence rate of 3.68 compared to the National Electrical Equipment and Supplies incidence rate of 8.5 (taken from the last report issued in 1975). This is an improvement over our 4.75 incidence rate for 1976 and shows that we are in the lower half of the incidence rates nationwide.

Safety Reminders

- Poor housekeeping is a leading cause of accidents, so keep your work stations and work areas clean.
- Eyes are easily damaged so wear your safety glasses and see tomorrow. If you don't have any, ask your supervisor!
- Do you know what to do when asked to handle chemicals? If not, ask your supervisor.
- Do you realize that approximately 1/4 of all accidents are back related? Remember to use proper lifting technique:
 1. Look at object to be lifted. Is it too heavy or clumsy?
 2. Stand close with feet apart.
 3. Bend your knees, *not* your back.
 4. Get a good grip.
 5. Lift gradually using your leg muscles.

SPRAGUE
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LOG

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GENERAL CABLE AND AUTOMATION INDUSTRIES MERGE

Automation Industries, Inc., a California-based supplier of technical services, materials evaluation, and environmental products, has become a subsidiary of General Cable Corporation. The merger was completed on May 26, 1978 and General Cable plans to operate Automation as a wholly-owned subsidiary under its present management.

Automation has four operating groups: the Technical Services operation which provides technical services to a number of government and commercial customers; the Environmental Products operation which includes the design, manufacture and sale of heating equipment and heating and air-conditioning ducting; the Materials Evaluation operation dedicated to the improvement of quality and safety of a broad range of products and services, and Other Industries, which produces steel tubing, among other products.

Automation's 1977 sales were \$253 million and its net earnings were \$10.9 million. The company is headquartered in Los Angeles and employs approximately 7,000 persons at various locations.



Pictured above is the new ramp constructed for the handicapped at the North Adams Plant.

SERVICE AWARDS

Sixty Quarter Century service awards will be presented in 1978. North Adams will add 33 members to the club, Worcester one, Grafton nine, Nashua six, Barre seven, plus four sales representatives. As of December 1977, there were 1133 Quarter Century members in the Company. Active members of the club totaled 640.

In addition to the Quarter Century awards, eight employees at North Adams will receive 45-year awards and five will receive 40-year awards. Orlando has one employee and North Adams 31 employees completing 35 years' service. 73 employees at North Adams, 14 employees at Nashua and 16 employees at Barre are completing 30 years' service. 20-year awards will be presented to 66 employees at North Adams and branch plants. In the 15-year category, North Adams, branch plants and overseas operations will have 129 employees, 229 will complete 10 years' service and 805, 5 years' service, making a total of 1437 employees who will be recognized for their service in Sprague Electric.